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Federal - State Cooperative Snow Surveys and Water Supply Forecasts for

OREGON



AND OREGON AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer, U.S. Forest Service, National Park Service and other Federal, State and local organizations.

AS OF-

Mar. 1, 1954

TO RECIPIENTS OF COOPERATIVE SNOW SURVEY AND WATER SUPPLY FORECAST REPORTS:

Forecasts by U. S. Weather Bureau of total annual streamflow October-September, inclusive, at more than 300 gaging stations are issued monthly January through May in the publication WATER SUPPLY FORECASTS FOR THE WESTERN UNITED STATES.

Weather Bureau forecasts of runoff presented in that bulletin are computed from procedures based on mathematical analysis of the relation between precipitation and runoff.

The Weather Bureau bulletins may be secured by writing to:

Hydrologist in Charge River Forecast Center U. S. Weather Bureau 712 Federal Office Building Kansas City 6, Missouri

For current information on local river and flood conditions, reference should be made to the appropriate River District Office listed below:

Meteorologist in Charge......Columbia River and Weather Bureau Office 320 Custom House Portland 9, Oregon

tributaries below Grand Coulee Dam, except the Snake River and tributaries.

Meteorologist in Charge......Oregon and California Weather Bureau Airport Station Box 1072 Medford, Ore.

Coast drainage, from and including Umpqua River Basin, southward to and including Klamath River and tributaries; the Great Basin in Oregon

State of Oregon

FEDERAL-STATE COOPERATIVE

SNOW SURVEYS AND WATER FORECASTS

FOR

OREGON

Report Prepared by

W. T. Frost, Hydraulic Engineer and Manes Barton, Assistant Water Forecaster

Issued

March 9, 1954

Soil Conservation Service and Oregon Agricultural Experiment Station 209 S. W. 5th Avenue Portland 4, Oregon

Harold E. Tower
State Conservationist
Soil Conservation Service

F. Earl Price Director Oregon Agricultural Experiment Station



Location Elev. Sec.Twp.Rge.	UPPER COLUMBIA DRAINAGE	Shake in Gregon)		31 45N 56E	rer 18 42N 53E	10 No. 2 56 78 6400 10 No. 2 56 78 6400 10 No. 2 56 78 6340	are adjacent	e Drainage and now conditions	78 A 8 N 8 N 8 N 8 N 8 N 8 N 8 N 8 N 8 N	25 45N 39E	33 46N 58E 22 44N 39E	18 39N 46E 7200 18 39N 55E 5700	6 44N 58E	MALHEUR RIVER	21 153 35E 24 16S 34E	10 18S 33 5 5120 23 188 32B 5100	33 218 34B	BURNT RIVER	16 145 36E 5950 a Surmit 6 125 36E 6098 34 108 35½E 5100	POWDER RIVER	18 73 378 7125 33 88 378 5800 atm 32 118 408 5430 adorms 18 88 5430 8 34435 88 5407	PINE CREEK	адоже 35 6S 45E 5400		22 5S 47E 4250	ONDE RIVER	16 45 45E 2 16 45 45E 8 55 37E	33 6S 36E 28 4S 34E	28 3S 41E 5850 9 8S 37E 6000	4 24 60 00 00 00 00 00 00 00 00 00 00 00 00	COURSES
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г Мате	LOWER COLUMBIA IN	WALLA WALLA RIVER	Tollgate	4	Balgrant Springs Lucky Strike Weschem	AY RI	Arbuokle Mountain Beech Creek Summit	Dixte Springs Gold Center	Schoolmarm Starr Bidge	CROOKED RIVER	Derr	Marks Creek Ochoco Meadows Temerok	The state of the s	orreg descention	Black Fine Spring Caldwell Ranch	Charlton lake	Emgry Flat	New Crescent Lake	New Dutchman Flat Tangent Three Creeks Meadowe Willamette Pase	LOWER DESCRUTES RIVER	Clear Laks Engg Fase Rook Greek HOOD RIVER	Brooke Meadows	Greenpoint Reservoir Red Hill Tilly Jane-Mt. Rood	SANDY RIVER	Phlox Point-Mt. Bood	Still Greek					IN
Number			212		222 223 223		241 248A	244	248 247B		343	34.1 24.1 24.1 24.1	Š	į	326	327	3211	325A	3244 3210 351 323		361 361 362	431	434 432		452	198					
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Name	INTERIOR	MARNER 1	Camas Creek	GUANO	Nev. 1 Bald Mountain	Mill Creek	SILVER		REMEI	Idlewild Camp	Silvies Snow Mountain	No Derili TT CREEK	6 Disaster Peak	GOOSE LAKE BASIN	Quartz Mountain	ATMOOGITAGO & MOOGIO		MPQUA	Diamond Lake No. Umpqua nr. Lake Trap Creek Windigo Pass	ROGUE R		Graybaok Peak Hobart Lake		Seven Lakes No. 2		South Fork Canal	Thaleback	KLAMATH LAKE	Annie Spring Chemult Chemult	Gerber Lake of the Woods Park Headquarters	Strawberry Summer Rim Sum Mountain Taylor Butte
Number			ALIS		Nev.	822		942	989	9614 964	951 965		Nev.		811				24.7 24.2 24.2 24.2 24.2 24.2 24.2 24.2		7216 729 722 725	727	723	7211	7219	7218	7217		831	835 835 838	857 841 842 842
ion Elev. Rge.			7.8	78 2045 78 3500		7B 2326 5B 1500+	38.33	7,8		7.E 6.B	7gE 4800 5E 1372	38		48	3E 1310 5E 2750	8 8		5	18 1200 18 1740 18 244		7W 3620					st Drainage)	12B	8B 7B	7%B 88 88 88 88	78 4533 5E 4960 11E 4600	ge) 168 5504
Location Sec.Twp.Rge.	RIVER BASIN	S RIVER	25 63	35 45 6S 14&15 6S		21 98			E RIVER		35 158 13 168	2 13	LLAMETTE RIVER		16 218	នេះ	LAMETTE BIVE	20	12 23 31 213 22 22 22 22 22 22 22 22 22 22 22 22 22		21 128			MO CODO	SHOW STATIONS	n & Calif. Coas	22 368	21 278	26 345 0) 22 335 P(0) 4 168	(copco) 15 358 (copco) 15 378 20 318	Interior Drainage) OPCO) 33 378 16B
г	WILLAMSTTE RIVER BASTN	CLACKAMAS RIVER	Big Bottom	Clackanas Lake Lake Harrist Peavine Ridge	SANTIAM RIVERS	Bred tenbush Detroit	Marion Forks	Santiam Junction Whitewater Bridge	MCKENZIE RIVER	Dead Horse Grade Lost Creek Ranch	MoKenzie Bridge	White Branch Slide	MIDDLE FORK WILLAMETTE RIVER	McCredie Springs	Cakridge Railroad Overpage	Salt Creek Falls	COAST FORK WILLAMETTE BIVER	The state of the s	Coampion Golden Curry Creek Layng Creek R.S. Lund Perk	MARY'S RIVER	Mary'e Peak			MODITIVO GUM	POWER COMPANY'S SHOW STATIONS	KLAMATH LAKE EASIN (Oregon & Calif. Coast Drainage)	Beatty (COPCO) Bly 101 Remoh (COPC	Chiloquin (COPCO)	Crystal (COPCO) Fort Klamath (COPCO	Kirk (COPCO) Lake of the Woods (COPCO) 15 Yamsey (COPCO)	GOOSE LAKE BASIN (Interior Drainage) Quarts Mountain (COPCO) 33 378 16
Number			594	595		551	557	552		532	531	533		525	526 526 524	523 521A		66.4	528 528 521 5210 529		541					KLAM	កង	01 PS	4100	8 6 21	Ø,

PRELIMINARY WATER SUPPLY OUTLOOK

FOR OREGON

March 1, 1954

Outlook for Oregon's 1954 water supplies is "excellent" to "poor".

- SNOW-COVER: Water content of mountain snow-cover averages 102 percent normal on 79 snow courses compared with 99 percent normal a year ago. Snow surveys above 5000 feet average 99 percent normal. Below 5000 feet the snow-cover is 111 percent normal. Snow-cover has increased only 10 percent since last month. This is only 40-50 percent of the average February 1 March 1 increase. By watersheds, snow-cover as percent of normal varies from a high of 173 percent in the Illinois River watershed to a low of 47 percent in the Owyhee River watershed.
- SOIL-MOISTURE: Soils on mountain watersheds are well wetted under present snow-cover except for the extreme eastern portion of the state where fall precipitation was short.
- RESERVOIRED WATER: Total water stored in 25 reporting reservoirs is 21 percent greater than the 10 year average (1942-51) and 1 percent greater than last year. Three reservoirs are full, eleven 75 percent full or better, seventeen 50 percent full or better.
- PRECIPITATION: State-wide precipitation, September through February, averages 104 percent of the 10 year average (1942-51). Precipitation varies from a high of 124 percent in Southwestern Oregon to a low of 64 percent in Southeastern Oregon.
- STREAMFLOW: Outlook for April-September streamflow in 1954 varies from "excellent" to "poor" assuming normal winter conditions in March.

Preliminary forecasts (see pages 2, 3, 4) indicate above average streamflow (10 yr. average 1942-51) can be expected in the Rogue, Klamath, Upper Deschutes and Chewaucan River systems. Late season water supplies in the Crooked, Silvies, Owyhee, Malheur, Burnt, Powder, Grande Ronde, and Umatilla watersheds will be short in those areas where stored water is not available. Other areas will have satisfactory supplies.

Stream discharge during February has been mostly above normal as follows: Umpqua 151%, John Day 179%, Grande Ronde 178%, Walla Walla 121%, Owyhee 70% and Upper Klamath Lake 148%.

1From preliminary data furnished by U. S. Weather Bureau, Portland, Oregon.

²From preliminary data furnished by U. S. Geological Survey, Portland, Oregon and State Engineer, Salem, Oregon.

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The following summarized runoff forecasts are based on present mountain snow cover and on the assumption that average March increase of snow cover will occur. Greater or less than average increase in mountain snow cover during the month will correspondingly modify these estimates:

		Seasonal	Stream	nflow in	Thousa	nd A.F.
		st 1954	70			f*10-Yr.
BASIN AND STREAM	Apr-	Other	10-Yr	•		Avg.
	Sept.	Period	Avg.	1952	1951	1942-51
NORTHCENTRAL OREGON						
Hood R., nr. Hood Riverl Hood R., W.Fk., nr. Dee White R., below Tygh Valley	330.0 175.0 165.0		97 108 97	324.7 155.8 171.2	358.8 156.4 202.6	339.7 162.7 170.0
UMA TILLA-WALLA WALLA	•		- '			
Walla Walla R., So. Fk.,						
nr. Milton	62.0		83	85.0	73.5	75.1
Umatilla R., nr. Gibbon	61.0		64	103.0	77.2	95.8
Umatilla R., at Pendleton	115.0		61	184.8	138.0	
McKay Cr., nr. Pilot Rock	19.0		59	23.3	17.6	32.0
NOR THE AS TERN OREGON						
Grande Ronde R., at La Grande	120.0		60	183,2	165.1	200.7
Catherine Cr., nr. Union	48.0		67	90.6	62.7	72.0
Bear Cr., nr. Wallowa	81.0		110	79.7	56.5	73.3
Lostine R., nr. Lostine	140.0		109	145.8	110.0	129.0
Hurricane Cr., nr. Joseph	48.0		103	55.3	41,0	46.7
Wallowa R., E.Fk., nr. Joseph ²	11.8		103	12.6	9.8	11.5
Imnaha R., at Imnaha	350.0		116	424. 3	267.5	
Powder R., at Salisbury	49.0		76	-	69.8	-
Burnt R., nr. Hereford ³	27.0		60	65.2	43.0	45.1
EASTERN OREGON						
Malheur R., nr. Drewsey	56.0		75	192.2	72.3	74.5
Malheur R., N. Fk., at Beulah4	46.0		76	122.0	54.4	60,1
Owyhee Res., net inflow5	•	260.0ª	51	1556,0	549.6	506.6
John Day R. at Prairie City6	47.0		89	67.2	44.3	52.8
John Day R., Mid. Fk. at Ritter	113.0		86	172.6	115.4	•
John Day R., No. Fk., nr. Dale	231.0		87	309.8	255.8	
Strawberry Cr.,nr. Prairie City	6,8		81	10.5	7.9	8.4

Discharge data from preliminary records of U.S. Geological Survey and Oregon State Engineer. 1953 records not available at this time.

Observed flow plus P. P. & L. Co. power canal.

Includes power plant tailrace.

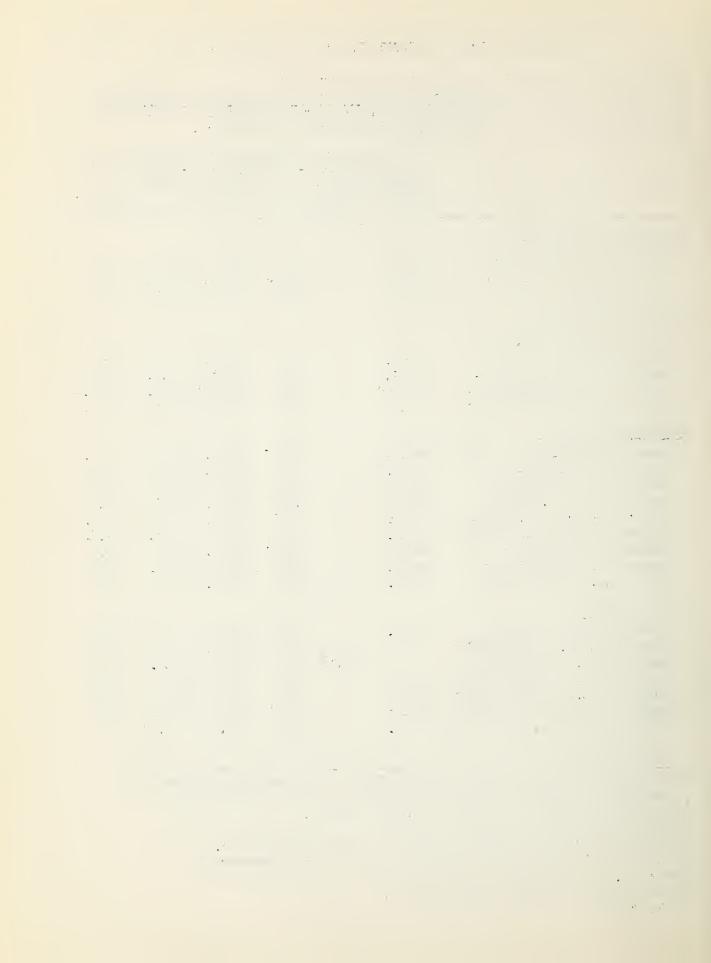
Observed flow plus changes in storage in Unity Reservoir.

⁴ Observed flow + change in storage in Agency Valley Reservoir.

⁵From U.S.B.R. records of inflow.

⁶ Observed flow + Prairie Power Canal.

a March-July



Streamflow Forecasts - March 1, 1954 (Cont'd)

	S	easonal	Strea	mflow in	Thousar	nd A. F.
BASIN AND STREAM		st 1954	70		d Runof	f*10-Yr.
	April- Sept.	Other Period	10-Yr Avg.		1951	Avg. 1942-51
HARNEY BASIN						
Silvies R., nr. Eurns	45.0		45	c	116.4	100.4
CENTRAL OREGON						
Ochoco Res., net inflow7	15.0		46	44.9	38,4	32.8
Crescent Cr. at Crescent Lake	25.0		109	c	41.8	22.9
Little Deschutes R., nr. Lapine8	98.0		103		126.1	95.1
Odell Cr., nr. Crescent	33.0		107	44.1	36.0	30.9
Deschutes R., below Snow Cr.	81.0		123	C	101.1	65.8
Crane Prairie Res., inflow9	148.0		114	c	182.9	129.4
Deschutes R., at Pringle Falls 10					700 4	000 5
	329.0		116		380.4	282.5
Deschutes R., at Benham Falls 11 Tumalo Cr., nr. Bend 12			117 108		707.1 59.0	519.0 50.7
Squaw Cr., nr. Sisters	55.0 58.0		113		62.4	
Crooked R., nr. Post	80.0		62	205.8	128.0	
Or Conducting his 1000	00.0		0.0	200,0	120,0	TDO.0
SOUTECENTRAL OREGON						
Deep Cr., above Adel		64.0b	96	129.2	71.9	66.6
Drew Reservoir, net Inflow		33.0ª		c		33.9
Chewaucan R., nr. Paisley		100.0 ^b		150.3	88.4	68.8
KLAMATH BASIN						
Sprague R. nr. Chiloquin	271.0		116	561.6	282.2	232.8
Upper Klamath Lk., net Inflow 13	653.0		134	•	_	486.7

^{*}Discharge data from preliminary records of U. S. Geological Survey and
Oregon State Engineer. 1953 records not available at this time.

7 Observed flow of Ochoco Cr. + Canal + changes in storage of Ochoco Res.

8 Observed flow + changes in storage of Crescent Lake Reservoir.

9 From State Engineer's file #3220a, tabulating total inflow to Crane Prairie
Reservoir and outflow, showing the loss in the Reservoir.

10 Observed flow + changes in storage in Crane Prairie and Wickiup Res.

¹¹ Observed flow + changes in storage in Crane Prairie and Wickiup Res.

Lake Reservoirs

Lake Reservoirs.

12 Observed flow + Columbia Southern Canal.

¹³From COPCO records of inflow.

aMarch-July

bApril-June

CRecords not available.

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Streamflow Forecasts - March 1, 1954 (Cont'd)

Streamflow Forecasts - March 1,		asonal Stream	nflow in	n Thousa	nd A.F.
BASIN AND STREAM	Forecas			d Runof	f*10-Yr.
DAGIN MYD C MUMAN	Apr- Sept.	Other 10-Yr. Period Avg.		1951	Avg. 1942-51
SOUTHERN OREGON					
Applegate R., nr. Ruch	214.0	192	c	99.9	111.7
Illinois R., at Kerby	234.0	132	241.8	114.4	177.9
Hyatt Res., net Inflow 14	6.4	112	9.0	3.8	5.7
Fourmile Lake, net Inflow 15	7.0	92	10.0	3.5	7.6
Little Butte Creek, N. Fk.,					
below Fish Lake 16	15.3	100	c	15.6	15.3
Rogue River above Prospect	362.0	113	477.1	345.5	320.3
Rogue R., Mid. Fk., nr. Prospect 17		109	c	77.8	76.1
Rogue R., So. Fk., nr. Prospect18	85,0	109	С	76.2	77.9
Rogue R., below South Fork	755.0	110	c	739.0	686.5
Clearwater R., above Trap Cr.	62.0	95	-	80.8	65.4
No. Umpqua R., below Lake Cr. No. Umpqua R., at Toketee	168.0	99	217.6	195.7	169.1
Falls 19	403.0	102	519.4	445.3	393.8
WILLAMETTE VALLEY					
Row River, near Dorena Willamette R., Mid. Fk.,	112.0	103	c	64.0	108.7
at Lowe 1120	978.0	110	1105.1	796,9	889.3d
McKenzie R., at McKenzie Bridge		107	674.2	658.4	591.6
McKenzie R., near Vida	1350.0	107	1434.3	1276.0	1266.6
Santiam R., So.Fk., at Waterloo	575.0	96	640.3	464.3	600.9
Santiam R., No. Fk., at Mehama ²⁰	933.0	103	1016,4	798.4	899.4
Clackamas R., above Three Lynx	681,0	107	c	681.7	636.0
Willamette R., at Salem20	5100.0	100	5607,6	4281.3	5121.8
Clackamas R. nr. Cazadero	896.0	108	c	817.0	829,8

*Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1953 records not evailable at this time.

14 Observed flow of Keene Creek at Hyatt Prairie + storage changes + 1600 a.f. for estimated evaporation during April-September period.

15 Observed outflow into Cascade Canal + storage changes + 1600 a.f. for estimated evaporation during April-September period.

16 Observed flow plus changes in storage in Fish Lake Reservoir + 90% of Cascade Canal inflow.

17 Observed flow + Middle Fork Power Canal.

18 Observed flow + South Fork Power Canal.

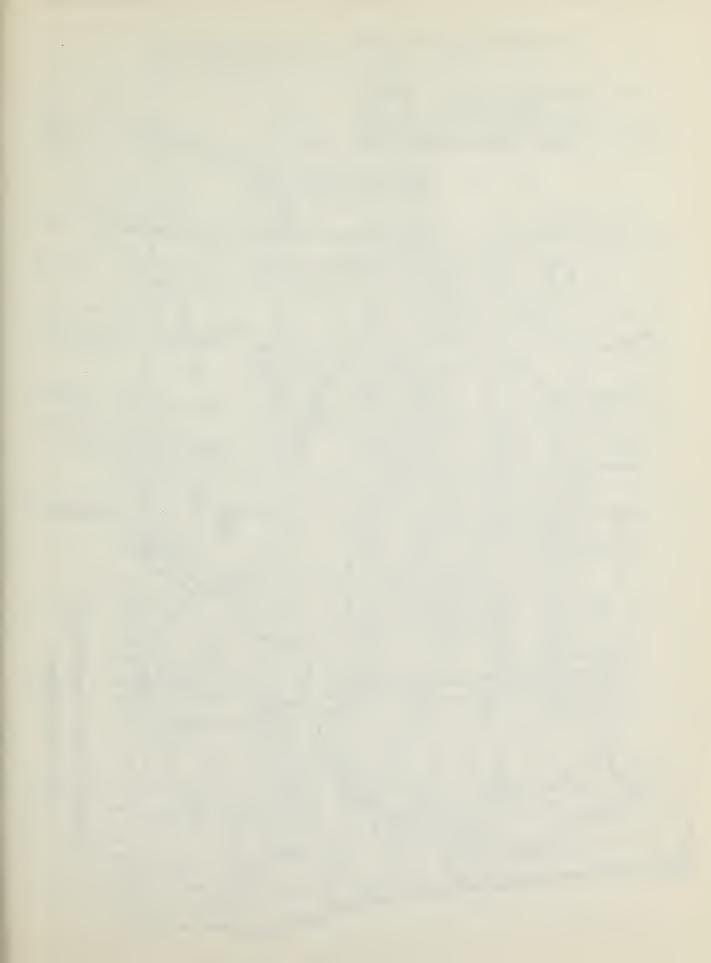
19 Sum of observed flow at North Umpqua River above Clearwater River (#7424) and Clearwater River at Mouth (#7423).

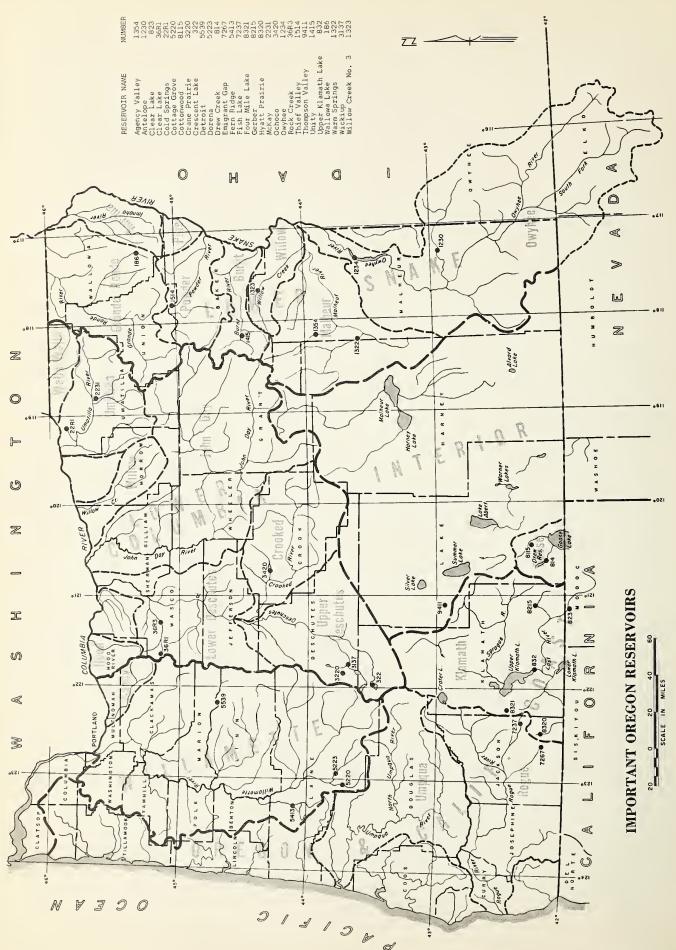
20 Observed flow + changes in storage in any of the following reservoirs which are above the station: Lookout Point, Detroit, Fern Ridge, Cottage Grove and Dorena.

CRecords not available.

dEstimated as percentage of flow at Eula.

3 , S.A . . a service





BASIN USABLE THOUSAND ACRE FEET IN STORAGE ABOUT MARCH FIRST												
and		CAPACITY		TVL	111011 1 1110		10-Yr.Avg.					
STREAM	RESERVOIR	(M.A.F.)	1954	1953	1952	1951	1942-51					
		UPPER COLUM	TRTA DRAT	INAGE								
		Lower Snak										
Owyhee	Antelope	36.5	16.0	13.3	5.8	22,0	9.8					
	Owyhee	715.0	468.1		479.5	652,6	503.3					
Malheur	Warm Springs	191.0	121.9	144.1	31.8	55.0	86.7					
	Agency Valley	60.0	29.2	34.7								
Burnt	Unity	25,2	8.6	8.7	5,9	12,7	9.3					
Grande Rond	le Wallowa Lake	40.9	33.3	27.8	11.4	18.2	20.3					
		LOWER COLUM	BIA DRAI	NAGE								
Umatilla	McKay	74.0	37,6	40.8	31.3	62,6	52,5					
	Cold Springs	50.0		33.0	42.2	46.6	40.1					
Deschutes	Ochoco	46.0	42.3	39.5	30.7 ^f	43,4	24,8					
	Crescent Lake	54,9	44.0	•			42,1 ^d					
	Crane Prairie	55.3		48,68			38.4					
	Wickiup	187.3	191.0	180,5	185.6	186.0	96.7					
Willamette	Cottage Grove	30.1ª	7.6	9.3	9,5	9.0	7.08					
	Dorena	70.5ª	16.6	16.6	16.5							
	Fern Ridge	94.2ª	26.3	31.4	30,6	31.5	29.2					
	Detroit	340.0 ^a	166.8	61.8								
	OREGON	AND CALIFO	RNIA COA	ST DRAIN	IAGE							
Rogue	Fish Lake	7,8	6.6	6,8	5.3	5,8	4.7					
	Fourmile Lakeb	16.1	1 5.9	11,9	6.3	11.8	6.6					
	Emigrant Gap	8,3	8.2	8.3	6.7	7,3	6.3					
	Watt Prairieb	16.1	13.1	12,0	4.2	5.8	5.3					
Klamath	Upper Klamath L	k,584,0°	491,7	482.0	381,8 ^f	481.2	370,9					
	Gerber	94.0	51.5	64.4	20.7	42.6	32.7					
	Clear Lake	440.2	282.0	267.6	89,2	124.5	210.3					
		INTERIOR	DRATHAG	Œ								
Goose Lake	Cottchwood	4.1	0.0	0,6	0,0	1.3	0.59					
	Drew	62,5	44.2	46.3	39,5 ^f	60.0	38.8 ⁹					
aStorage sp	ace reserved for	flood		9 ₁₃₄₃ -	1051							

astorage space reserved for flood comtrol.

bBy datich to Rogue River side from Klomath Drainage.

^cBased on gage zero elevation of 4135.0.

d1951 excepted.

fSpilling to provide space for funure inflow.

Estimated.

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COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

The following tabulation of Oregon stream basin presents the water content of the snow about March 1, 1954 as percent of the same date in 1953 and 1952 and average of record:

	No. of	Yrs.		n 1, 1954	
DRAINAGE	Courses Averaged	of Record	1953	t as pero	Avg.
UPPER COLUMBIA DRAINAGE (I				1002	*** * 17.0
Militarian mangaran and property and a second secon		13 - 26	63	28	47
Cwyhee River Malheur River	7 - 12 4 - 5	14 - 18	5 <i>7</i>	38	58
Burnt River	4 - 5 4	10 - 18	73	53	77
Powder River	5	14 - 17	83	69	90
Pine Creek	1	3	67	60	73
Imnaha River	2	10	93	82	111
Grande Ronde River	8	10 - 17	93	81	98
Wallowa River	2	10 - 17	93	82	111
Catherine Creek	ī 1	15	93	88	97
Main Grande Ronde	5	14 ~ 17	93	79	88
	3	74 - 11	30	13	00
LOWER COLUMBIA DRAINAGE					
Walla Walla River	1	15	110	79	98
Umatilla River	5	12 - 17	78	61	74
Willow Creek	1	12	54	5.5	73
John Day River	11	10 - 18	81	63	86
North Fork	5	12 - 18	83	74	92
Middle Fork	3	10 - 18	85	61	88
Main Branch	3	17 - 18	78	53	82
South Fork	1	18	97	46	76
Crooked River	3	11 - 17	88	38	69
Deschutes River	3	12 - 17	108	74	112
Hood River	1	6	118	83	94
Willamette Valley	9	12 - 16	130	83	124
Sandy River	3	12 - 16	124	93	124
Clackamas River	3	12 - 16	156	90	125
Santiam Rivers	3	13	120	75	117
McKenzie River	2	13	118	74	114
Middle Fork	1	15	156	65	139
Coast Fork	1	15	156	65	139
OREGON AND CALIFORNIA COAS	T DRAINAGE				
Umpqua River	2	15 - 25	ממד	67	149
Rogue River	10 - 11	10 - 20	122 103	67 64	142 123
Upper Rogue	4	10 - 17	93	62	108
Bear-Little Butte Cr.	3 - 4	16 - 19	97	66	118
Applegate River	2 - 3	10 - 16	135	72	155
Illinois River	2 - 0	12 - 14	161	60	173
Klamath Lake Basin	15 - 16	10 - 27	98	61	112
Williamson River	11	10 - 27	96	62	110
Sprague River	6	13 - 27	115	5 6	120
Gerber-Clear Lake Basi		13 - 15	101	48	101
INTERIOR DRAINAGE					
Goose Lake Basin	3	10 - 15	96	46	98
Warner Lake Basin	ĭ	10	88	44	93
Silver Lake Basin	ī	13	236	66	189
Chewaucan River	3	14 - 15	120	76	156
Harney Basin	5 - 6	14 - 19	71	39	65

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Otherwise generalization again-programme and an open day view on a generalization special	to the de the transfer to				OU COVER		MEASURIMENTS Past Record				
DRAINAGE BASIN	No.		Date	1954 Snow	Water		rast Re	corq	Years		
and	or		of		Content	Water	Conten	t (In.			
SNOW COURSE	State	Elev.	Survey		(In.)	1953	1952		Record		
17	D D E D	a	** 10 5	-			3				
<u>u</u>	PPER		U M B		DRAI	N A G	<u>.</u>				
OWYHEE RIVER		TOME!	R SNAKE	IN OR	EGON						
MD 4 1					_		04.5	30 =	0.7		
	Nev.1 Nev.4	7800 7800	Not 2/25	Measu 14.0			24.3	16.5	21 22		
	Nev.10	7250	2/25	18.0	4,1 5,4	8,5 10,8	23,0	9.8	17		
	Nev.6	7200	3/1	0.0	0.0	0.0		4,8	13		
	Nev.2	7200	2/28	1.5	0.7	5.1		9.6	19		
	Nev.4	7100	2/23	29.1	7.6	15.0		12.7	7		
	Nev.2	6800	•	Measu			14.8	8.9	21		
	Nev.9	6800	2/25	T	T	3.4	7.9	4.6	26		
Rodeo Flat	Nev.8	6800	2/24	13.3	4.7	9.2	15.1	12.2	20		
	Nev.6	6700	2/24	19.9	5.5	7.8	12.2	9.1	25		
	Nev.7	6700	2/24	12.6	4.8	7.0	16.5	9,3	20		
	Nev.l	6700	2/27	16,9	5.9	5.1		8.7	19		
	Nev.3	6700	2/24	18.0	5.6	6.8	21.2	8,5	22		
	Nev.5	6600	2/24	12.6	4.1	5.5		6.6	21		
	Nev.6	6500	2/27	17.0	7.3	15.0	46.7	19.5	5		
	ho 12	6400	3/1	36.0	12.6	14.4	25.7	15.1	8		
South Mountain, 2Id		6340	2/27	20.0	6.7	8.4	23.8	11.7	14		
•	Nev. 12 Nev. 11	6200 5700	2/25 2/25	17.3 T	5.4 T	3,6 0,0	12.0 7.0	5.8 2.6	19 22		
Ilemenan Vancu	TAG A * TT	3700	6/60	7.	Ţ	0,0	7.0	د ۵ و ۵	22		
MALHEUR RIVER											
*Barney Creek	143	5950	3/3	21.8	7.1	7.1	13,1	3.2	9		
Blue Mountain Spgs		5900	3/2	42.2	14.6	17.3	22.0	15.3	18		
Crane Prairie	137	5375	3/2	24.3	7.7	11.6	15.6	9.7	15		
Lake Creek	136	5120	3/2	28.6	9,3	13.1	16,3	10.8	15		
Rock Spring	134	5100	3/1	12.3	3,8ª	6.8		6.7	18		
Stinking Water	135	4800	3/1		0.0		8.7	4.7	14		
BURNT RIVER											
Barney Creek	143	5950	3/3	21.8	7.1	7.1	13.1	8.2	9		
Dooley Mountain	156	5430			5.5	11,1		9.4	15		
*Gold Center	249	5340		36.1	12.0	13.3	17.3				
Tipton	142	5100			7.6	10,4			10		
Blue Mountain Smt.		5098	3/1	22.1		8,8			18		
POWDER RIVER		3000	J/ ±.		5. 5	0,0			20		
			,								
Anthony Lake	155	7125			22.9	23.2	25.1		14		
Goodrich Lake	157	6775	3/1	87.1	34.9	36.5			6		
Bourne	154	5800	2/26	46.3	14.3	18.6	21.3	15.5	17		

*Not located directly on this drainage area. *Telegraphic.

				SN	OW COVER	MEASU	REMEN TS		
				1954			Past Re		
DRAINAGE BASIN	No.		Date	Snow	Water	717	~ .	. /-	Years
and SNOW COURSE	or State	Elev.	of Survey		Content (In.)	1953	Conten 1952	Avg.	
DIMM COOLDE	Diate	TITO A.	our vey	(111.)	(TIT •)	1900	1900	Avg.	VA COLG
	UPPER	CO	LUMB	AI	DRAI	N A G	E		
POWDER RIVER (Cont	'd)						_		
Dooley Mountain	156	5430	3/1	18.1	5.5	11.1	14.4	9.4	15
Eilertson Meadows	15 l B	5400	2/28	33.0	11.0	12.6	17.0	11.6	15
*Gold Center	249	5340	2/27	36.1	12.0	13.3	17.3	12.4	14
PINE CREEK									
Schneider Meadows	161	5400	2/27	76.2	26.5	39.3	44.4	36.1	3
IMVAHA RIVER									
*Aneroid Lake No.1	183	7480	2/27	98.0	35.8	38.3	43.3	32.0	10
*Aneroid Lake No.2	183A	7000	2/27	76.1	27.9	30,3	34.7	25,5	10
Coverdale	171	4250	Not	Measur	red			11.6	6
GRANDE RONDE RIVER	_								
Aneroid Lake No. 1	183	7480	2/27	98.0	35.8	38.3	43.3	32.0	10
Anthony Lake	155	7125	2/25	66.2	22.9	23,2	25.1	24.2	14
Aneroid Lake No. 2	183A	7000	2/27	76.1	27.9	30.3	34.7	25.5	10
Moss Spring	186A	5850	3/1	54.3	20.4	21.8	23.2	21.0	15
Beaver Reservoir	188	5340	2/25	31.5	10.2	10.3	11.2	10.5	14
Tollgate *Lucky Strike	212 223	5070 5050	2/2 5 2/26	62.0	24.9	22.7	31.5	25.4	15
Schoolmarm	248	4775	3/1	32.4 9.4	9.9 3.4	14.8 4.0	13.4 7.1	12.3	15 7
Meacham	221	4300					_	9,6	17
County Line	189	4800	2/25 3/1	13.3	4.6	7.3 5.3	10.1 7.6	6.4	ż
-	LOWER	<u>c o</u> .	LUMB	IA	DRAI	N A G	E		
WALLA WALLA RIVER									
Tollgate	212	5070	2/25	62.0	24.9	22.7	31.5	25.4	15
UMATILLA RIVER									
Arbuckle Mountain	241	5400	3/1	21.9	8.4	15.5	15,2	11,5	12
Tollgate	212	5070	2/25	62.0	24.9	22,7	31.5	25.4	15
Lucky Strike	223	5050	2/26	32.4	9.9	14.8	13.4	12.3	15
Me a cham	221	4300	2/25	13.3	4.6		10,1		17
Emigrant Springs	222	3925	2/25	3.0	1.0	2,5	9.8	7.3	17
WILLOW CREEK									
Arbuckle Mountain	241	5400	3/1	21.9	8.4	15.5	15.2	11.5	12

*Not located directly on this drainage area

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				SN	OW COVER	MEASUI	REMENTS		
				1954			Past Re	cord	
DRAINAGE BASIN	No.		Date	Snow					Years
and	or		of		Content				
SNOW COURSE S	tate	Elev.	Survey	(In.)	(In.)	1953	1952	Avg.	Record
T.	OWER	C 0 1	LUMB	Τ Δ	DRAI	MAG	R		
=					T T T T	II A U			
JOHN DAY RIVER									
*Anthony Lake	155	7125	2/25	66.2	22.9	23.2	25.1	24.2	14
Snow Mountain	965	6300		t Meas				10,8	5
Olive Lake	245	6000	3/1	54.5	18.2ª	19.1	25.2	17.2	18
Blue Mountain Spgs.	133	5900	3/2	42.2	14.6	17.3	22.0	15.3	18
Arbuckle Mountain	241	5400	3/1	21.9	8.4	15.5	15.2	11.5	12
Gold Center	249	5340	2/27	36.1	12.0	13.3	17.3	12.4	14
*Izee Summit	964	5293	2/26	20.1	6.3	6.5		8.3	18
Starr Ridge	247B	5156	2/26	15.3	4.8	5.1	10.8	5.9	18
Tipton	142	5100	3/3	24.6	7.6	10.4	14.9	10.6	10
Blue Mountain Summit		5098	3/1	22.1	6.8	8.8	13.6	9.1	18
*Lucky Strike	223	5050	2/26	32.4	9.9	14.8	13.4	12.3	15
Beech Creek Summit	246A	4800	2/26	9.0	3.4	7.0	10.4	6.5	17
Schoolmarm	248	4775	3/1	9.4	3.4	4.0	7.1	4.5	7
CROOKED RIVER									
*Snow Mountain	965	6300	Not	Measu	red			10.8	5
Ochoco Meadows	341	5200	2/27	24.7	8.5	9.4	19,6	10,1	17
Tamarack	342	4800	3/1	12.2	4.1	6.2	10.2	6.4	11
Marks Creek	344	4540	3/1	7.3	2.1	1.2	9.3	4.8	16
			J/ =	,,,					
DESCHUTES RIVER									
New Dutchman Flat	324A	6400	2/24	136.5	56.3	52.2	65.2	53.6	6
Windigo Pass1	744	5800		113.2	45.2	43.1	53.6	46.3	3
Three Creeks Meadows		5600	2/25	61.4	24.4	19.0	-	21.8	7
Willamette Pass	323	5600		115.2	46.0	39.5	54.6	43.7	3
Tangent	3210	5400	2/24	71.9	27.8	27.4	33.0	30.2	2
Cascade Summit	321	4880	2/28	85.3	34.4	26.9	45.6	31.4	9
New Crescent Lake	325A	4800	2/28	47.8	18.0	18.2	23.4		2
*Chemult	834	4760	2/28		14.1	17.4			17
Crescent Lake	325	4760	2/28	42.6	17.6	15.7		13.1	5
Hogg Pass	351	4755	2/27	111.4	43.0	38.5	56.1	39.7	13
Black Pine Springs	333	4600	2/25	17.2	6.7	3,0	9.8	5.5	2
Hungry Flat	3211	4400	2/23		11.2	6.5	10.8	8.6	2
Clear Lake ²	361	3500	2/26	40.8	14.2	9.8		12.5	12
	001	5500	۵/۵٥	#O*O	TT.	J.0	10,0	TO 9 ()	10
HOOD RIVER									
Tilly Jane Mt. Hood	432	6000	2/21	114.6	45.2	38.4	54.4	48.1	6
Red Hill	434	4400		121.6	8	30.4	57.1	52.1	6
Greenpoint Reservoir	433	3400		ort De		5.8		18.6	5

*Not located directly on this drainage area.

Course revised to 9 samples at 100 ft. Earlier records recomputed and available upon request.

Course revised to 11 samples at 100 ft. Earlier records recomputed and available upon request.

aTelegraphic.

eWater content not useable.

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OREGON SNOW SURVEYS - ABOUT MARCH 1, 1954

				SNO	W COVER	MEASU	REMENTS		
				1954			Past Re	cord	
DRAINAGE BASIN	No.		Date		Water			. ,	Years
and	or		of		Content			The second second second	-
SNOW COURSE	State	Elev.	Survey	(In.)	(In.)	1953	1952	Avg.	Record
		<i>a</i> o 1	כו זגו דד	т л	DDAT	7T A C	tr		
•	LOWER	<u> </u>	LUMB	<u> </u>	DRAI	N A G	=		
WILLAMETTE VALLEY	STREAMS								
SANDY RIVER1									
Phlox Point-Mt. Hoo	d 452	5600	3/1	146.2	65.6	57.9	66.7	53.6	15
Still Creek	451	3700	3/1	75.0	28.8	20.2	31.1	21.2	16
*Clear Lake ²	361	3500	2/26	40.8	14.2	9.8	18.6	12.5	12
CLACKAMAS RIVER									
*Clear Lake2	361	35 00	2/26	40.8	14.2	9.8	18,6	12.5	12
Peavine Ridge	591	3500	2/27	61.7		14.4	25,2	16.6	16
Clackamas Lake	592	3400	2/23	46.2		10.4	16.4	14.2	13
Big Bottom	594	2118	2/27	29.0		3.7	12.5	8.0	3
Lake Harriet	595	2045	2/27	12.2	-	1.0b	9.5	3,5	3
SANTIAM RIVERS			·						
Hogg Pass	351	4755	2/27	111.4	43.0	38,5	56,1	39.7	13
Santiam Junction	552	3990	2/27	67.8	28.9	22.4	40.9	23.1	13
Marion Forks	553	2730	2/27	44.4	17.5	13.7	21.8	13.8	13
Breitenbush	551	2325		Measu	-		10.2	4.8	10
Whitewater Bridge	554	2175	2/27	18.3	6.8	2.0	10.5	9.6	4
Detroit (new town)	55 5	1500+	2/27	0,0		0.0	4.3	1.4	3
Detroit Dam	556	1580	2/27	0.0	0.0	0.0	0.0	1.0	4
Mill City	55 7	826	2/27	0.0	0.0	0.0	0.0	0.0	3
Snow Line: Approx	imately 20	1000							
McKENZIE RIVER									
McKenzie	531	4800	2/27	104.7	42.4	39,2	55. 9	53,3	4
Hogg Pass	35 1	4755	2/27	111.4	43.0	38.5	56,1	39.7	13
Santiam Junction	552	3990	2/27	67.8	28.9	22.4	40.9	23.1	13
Dead Horse Grade	532	3800	2/27	52.3	21.8	16.2	29.0	27.7	3
White Branch Slide		2800	2/27	0.0	0.0	3.8	13.0	9.9	3
Lost Creek Ranch	534	1956	2/27	0.0	0.0	0.0	~ **	0.0	1
McKenzie Bridge	5 35	1372	2/27	0,0	0.0	0.0	5.5	3.3	3
Videe	536	800	2/27	0.0	0.0	0.0	***	0.0	1
Snow Line: Approx	imately 28	3001							

Not located directly on this drainage area.

bPartly estimated.

Not strictly a part of the Willamette Drainage; these surveys are indicative of west slope conditions.

²Course revised to 11 samples at 100 ft. Earlier records recomputed and available upon request.

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				SNO	OW COVER	MEASU	REMENTS		
				1954			Past Re	cord	
DRAINAGE BASIN	No.		Date		Water	TOP I	a l	± / т	Years
and SNOW COURSE	or State	Elev	of Survey		Content	1953	1952		.) of Record
	-		Dui voy	(1110)	(2.24 0)	1000	1000	11100	1100014
WILLAMETTE VALLEY S	TREAMS	(Cont'd)							
MIDDLE FORK WILLA	METTE F	RIVER							
Willamette Pass	323	5600	2/27	115.2		39,5	54.6	43.7	3
Cascade Summit	321	4880	2/28	85.3		26.9	45.6	31.4	9
Champion Salt Creek Falls	522 523	4500 4000	$\frac{3}{1}$ $\frac{2}{28}$	72.8		21.1 14.6	50.3 25.0	23,6 23,5	15 5
Railroad Overpass	524	2750	2/28	43.3 8.0	18.4 3.0	1,0	8.6	7.3	5
McCredie Springs	525	2120	2/28	0.0		0.0	1.0	1.3	5
Oakridge	526	1310	2/28	0.0		0.0	0.0	T	4
Meridian Dam	527	750	2/28	0,0	0.0	0.0	0.0	0.0	4
Snow Line: approxi	•								
COAST FORK WILLAM								0.7. 0	3.0
Champion	522	4500	$\frac{3}{1}$	72.8	32.9	21.1	50,3	23.6	15
Golden Curry Creek Weaver Creek	528 529	3136 2440	3/1 $3/1$	T 0.0	T 0.0	2.7 0.7	17.8 8.3	9.6 3.3	4
Lund Park	5210	1740	3/1	0.0	0.0	0.0	-	2.3	4
Layng Creek R.S.	5211	1200	3/1	0.0	0.0	0.0	0.0	0.0	4
Snow Line: approxi		30001	,	·		-			
MARY'S RIVER									
Mary's Peak	541	3620	3/5	23.6	9.9	4.1		4.1	1
OREGON A	N D	CALII	ORN	ΙA	COAS	T D	RAI	II A G	E
UMPQUA RIVER				Sealant artists					
Windigo Pass ²	744	5800	2/27	113.2	45.2	43.1	53.6	46.3	3
Diamond Lake	743	5315	2/27	66.9	26.3	27.4	38.4	18.1	25
Whaleback	7217	5140	2/26		38.1			36.6	
Champion North Umpqua	522	4500 42 1 5	3/1 2/26	72.8 47.3		21.1	50.3		15 2
-	742	4215	2/20	41.5	11.9	18.4		18.0	۵
ROGUE RIVER			_						
Wagner Butte	7213	6900	2/26	50.4	19.1	20.0	27.2	15.2	16
Seven Lakes No.1	7211	6800	2/26	138.2		57.8	40.0	47.2	6
Big Red Mountain Little Red Mountain	729 7210	6500 6500	3/3 3/3	101.1 70.9		33.5 26.5	49.2 32.6	27.3	5 5
*Park Headquarters	838	6450	$\frac{3}{3}$	131,8		62.5	87.4	55.2	10
Scragg Mountain	7220	6200	2/28	76.8			53.3	25.4	10
Seven Lakes No. 2	7212	6200	2/26	97.6	38.5	39.0		36.8	6

^{*}Not located directly in this drainage area. ²Course revised to 9 samples at 100 ft. Earlier records recomputed and available upon request.

aTelegraphic,
bPartly estimated,

				SNO	OW COVER	MEASU	REMENTS		
			**************************************	1954			Past Re	cord	
DRAINAGE BASIN	No.		Date		Water				Years
and	or		of		Content	Water	Conten	t (In	
SNOW COURSE	State	Elev.	Survey			1953			Record
ROGUE RIVER (Contid	1)	halificia di mandra di mana di Manachardh							
Mania Canina	071	4070	3/1	110 7	4.52 .5	40.4	61 0	70 0	20
*Annie Spring *Fourmile Lake	831	6018		110.3	43.5	48.4	71.2	39.0	20
	7223 727	600 0 6000	2/23	69.0	23.8	23.4	40.7	23.4	1
Grayback Peak Billie Creek Divide		5300	$\frac{3/1}{2/22}$	76.0		20.9	49.7	19,8 19.8	12 19
Whaleback	7217	5140	2/26	63.8		22.2	 54]	26.6	6
Hobart Lake	7221	5010	3/2	95.1 23.2		35,1	54,1 9,4	6,2	6
*Hyatt Prairie Res.	723	4900	3/1			12.0			19
Fish Lake	725	4865	2/27	32.8		12.9		10.6	17
Siskiyou Summit	728	4630	3/1d	31.9	10.6			6.8	17
Althouse	7216	4400	3/1	20.7	7 1	5.9	21.9		14
Silver Burn	7219	3720	2/28	43,2	7.1 16.9	16.1	-	11.7	
South Fork Canal		3500	2/27	43,2 7.7		T	9.6	4.0	17
KLAMATH LAKE BASIN	1510	0000	2/21	71.1	۵,5	1	J.0	Ξ.0	1
MIAWATH LAME DASTN									
Summer Rim	841	7200	3/2	58.1	24.3,	19.3	26.8	14.5	14
Seven Lakes No. 1	7211	6800	2/26	138.2	59,9 ^b	57.8		47.2	6
	838	6450	3/1	131.8	55.2	62.5	87.4	55.2	10
Seven Lakes No. 2	7212	6200	2/26	97.6		39.0	-	36.8	6
Annie Spring	831	6018	3/1	110.3		48.4	71.2	39.0	20
Fourmile Lake	7223	6000	,	69,0	•	23.4		23.4	1
Strawberry	837	5600	3/2	22.7	7.8	8.5	18.0	9.1	13
*Quartz Mt. (COPCO)		5504		Measu	red	7,0	10.0°		22
Sun Mountain	836	5350	2/24			28.9	43,1	25.0	16
~Quartz Mt.	811	5320	3/2	21.2	7.7 ^a	6,8		6.3	15
Billie Creek Divide	722	5300	2/22	63.8	22.8	22,2	**	19.8	19
Crowder Flat	Calif.	5200	Not	Measu	red	2.8	** ***	3.1	12
Lake of the Woods	835	4960	2/28	40.1		16,9	21.0	9.6	17
Lyatt Prairie Res.	723	4900	3/1	32.8	12.8	12.0	16.4	9.9	19
Gerber	839	4850	3/1	0.0	0.0		6.4	4.0	3
Bly 101 Ranch (COPC	:0)	4800	2/28	0.0	0.0	0.0	4.2	1,6	27
Chemult	834	4760	2/28	35.2	14.1	17.4	21.4	11.7	17
Yamsey (COPCO)		4600	Repo	ort Del	ayed	0.0	6.2	2.5	25
Mirk (COPCO)		4533	3/1	26.0	8.8	3,8	9,0	6.1	26
Beatty (COPCO)		4300	2/26	0.0	0.0	0.0	0.0	0.2	27
Crystal (COPCO)		4200	2/28	18.0	8.0	9.0	23.0	8.8	24
Harriman Lodge (COP	(OD	4200		ort Del	ayed	0.9	8.0	4.0	27
Chiloquin (COPCO)		4187	2/28	T	T	0.0	7.2	1.6	24
Fort Klamath (COPCO	•	4150	2/28	9.8	3.4	0.0	10.0	3.9	27
Taylor Butte	842	5100	2/23	28.2	9.8	~~	~-		0
Not located d	irectly	in this	draina	ge area	ì.				
afdramanhia .									

aTelegraphic.
bPartly estimated.
cWater content questionable.
dNo survey due to logging operation which has removed all snow from course.

				CAT	ON GOVED	TUTO ACTIO	ייי דר ידו ווייי		
				SNOW COVER MEASUREMENTS 1954 Past Record		base			
DRAINAGE BASIN	No.		Date	Snow	Water		230 1.6	cora	Years
and	or		of		Content	Water	Conten	t (In	
SNOW COURSE	State	Elev.	Survey						Record
			······································						
	<u>I</u> <u>N</u>	TER.	IOR	DRA	INAG	E			
GOOSE LAKE BASIN									
Camas Creek	911A	5720	2/1	27 6	10.0	11 4	22.6	10.7	10
Strawberry	837	5600			7.8				
Quartz Mt.(COPCO)		5504			red			6,6	
Quartz Mountain	811	5320	3/2			6.8	14,4		15
WARNER LAKE BASIN									
Value of a 1	0774	5500	- /-				00.0		7.0
*Camas Creek	911A	5720	3/1	27,6	10.0	11.4	22.6	10.7	10
GUANO LAKE BASIN									
Bald Mountain	Nev.1	6720	3/1	1.2	0.6	1.0	10.3	3,9	13
CHEWAUCAN RIVER									
*Summer Rim	841	7200	3/2	58.1	24.3	19.3	26.8	14.5	14
Mill Creek	922	6200	3/1	28.7			17.1		14
*Quartz Mountain	811	5320	3/2	21.2	7.7ª	6.8	14.4	6.3	15
SILVER LAKE BASIN									
OTIVITY DINCE									
Silver Creek	942	4900	2/27	17.1	6,6	2.8	9.9	3.5	13
HARNEY BASIN									
Snow Mountain	965	6300	Mat	: Meası	ıred			10,8	5
Izee Summit	964	5293				6.5	13.8		
Idlewild Camp	961A	5200	3/1	11,9	3.5ª	7.4	11,6	6.0	19
Starr Ridge	247B	5156	2/26	15.3	4.8	5.1	10.8	5.9	
Lake Creek	136	5120	3/2	28.6	9.3	13.1	16,3	10.8	
Rock Spring	134	5100	3/1	12.3	3.8ª	6.8	10.0	6.7	18
Stinking Water	135	4800	3/1	0.0	0,0		8.7	4.7	14
ALVORD LAKE BASIN									
*Disaster Peak	Nev.6	6500	2/27	17.0	7.3	15.0	46.7	19.5	5
McDERMITT CREEK									
Disaster Peak	Nev.6	6500	2/27	17.0	7.3	15,0	46.7	19.5	5

^{*}Not located directly on this drainage area. Water content questionable.

aTelegraphic.

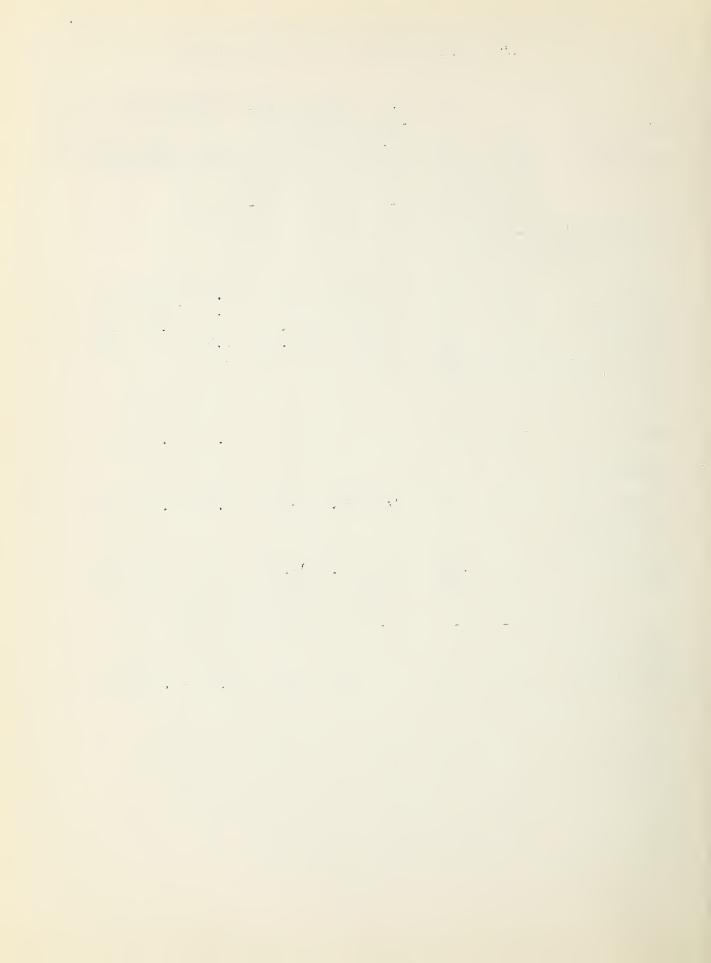
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			SNOW COVER MEASUREMENTS						
			1954		Past Record				
DRAINAGE BASIN and	No. or		Date of	Snow	Water Content	Woton	Conton	+ (Tx	Years
SNOW COURSE	State	Elev.	Survey		(In _e)	1953			Record
		210 /	- ar vey	(==== /	(2225)	1000	1000	****	110 001 4
	F I	B R U	ARY	1,	1954				
HOOD RIVER									
Red Hill	434	4400	2/8	103.8	43.8	20.4	48.7	35.5	5
ROGUE RIVER									
Scragg Mountain	7220	6200	2/7	70,5	30,4	26.2	44.4	18.9	11
	<u>F</u> E	BRU	ARY	15,	195	<u>4</u>			
DESCHUTES RIVER									
Cascade Summit	321	4880		82.5				-	
Hogg Pass	351	4755	2/13	100.9	41.7	34.1	52,5	44.0	4
WILIAMETTE VALLEY S	TREAMS								
SANTIAM RIVERS									
Hogg Pass	351	4755	2/13	100,9		34.1	52.5	44.0	4
Santiam Junction	552	3990	2/13	57.0		18.7	36.5	29.4	4
Marion Forks Whitewater Bridge	553 554	2730 2175	2/13 2/13	43.4	15.5 6.3	8.7 0.0	20.0	17.8 11.3	4 3
Detroit (new town)	55 4 555	1500+			2.3	0.0		2.9	4
Detroit Dam	556	1580	2/13		0.0		0.0	3.1	3
Mill City	557	826	2/13	0.0		0.0	0.0	0.0	2
Snow Line: Approxi	mately 15	801			٠				
McKENZIE RIVER									
Hogg Pass	351	4755	2/13			34.1			4
Santiam Junction	552	3990	2/13	57.0	24.8	18.7	36.5	29.4	4
MIDDLE FORK WILLA	METTE RIV	ÆR							
Cascade Summit	321	4880	2/14	82,5		23,5	41,7		4
Champion	522	4500	2/15	68,6		19.5	44.2	30.8	5
Salt Creek Falls	523	4000	2/14	41.6		11.0		22.0	5
Railroad Overpass	524 52 5	2750	2/14 2/14	13.4		1.0	7.4	7.7 3.1	5 5
McCredie Springs Oakridge	526	2120 1310	$\frac{2}{14}$	0.0	-	T 0.0	1.0	0.0	4
Meridian Dam	527	750	2/14	0.0		0.0	0.0	0.0	4
Snow Line: Approxi			,	- • •	•		•	Ť	

= 4 • • —) - Nameder (10 %) a de la companya de l . •

OREGON SNOW SURVEYS - DELAYED DATA (Cont'd)

			SNOW COVER MEASUREMENTS 1954 Past Record						
DRAINAGE BASIN	No.		Date	Snow	Water				Years
and SNOW COURSE	or State	Elev.	of Survey		Content	$\frac{\text{Water}}{1953}$			Record
	T3 T3 T3 T3	T A TO TP				D DT 1730			
F	EBRU	ARY	15,	195	4 (0)	N T'	(ט		
WILLAMETTE VALLEY	STREAMS	(Contid	1)						
COAST FORK WILL	AMETTE F	RIVER							
Champion	522	4500	2/15	68,6	26.5	19.5	44.2	•	5
Golden Curry	528	3500	2/15		6.0	2.0		8.6	4
Weaver Creek Lund Park	529 5210			0.0	0.0	T 0.0	7.4 5.0	2.5 3.2	3 4
Layng Creek R.S.		1200	2/15		0.0	0.0		0.8	4
Snow Line: Approx			2/ 10	0,0	0,0	0. 0		0,0	-
UMPQUA RIVER									
Champion	522	4500	2/15	68.6	26.5	19.5	44.2	30.8	5
ROGUE RIVER									
Siskiyou Summit	728	4630	2/14	35.5	14.7	8,2	17.1	12.4	4
KLAMATH RIVER									,
Lake of the Woods Gerber	835	4960			14.0	_		•	3 2
Gerber	839	4850	2/14	6.8	2.6		5.8	4.3	4
FEBRUARY 1, 1954 (ADDENDUM)									
POWDER RIVER									
Goodrich Lake	157	6775	2/1	81.6	27.4	29.4	38.3	28.1	5



OREGON PRECIPITATIONa

FAT.T.

DRAINAGE	SeptOctNov,1953		DecJanF	eb. 1953-154					
DIVISION	Average	Departureb	Average	Departureb					
Southeastern	1.50	-1.15	2.53	-1.16					
Blue Mountains	3.15	-1.76	5.57	-1.05					
Wallowa Mountains	2.70	-2.12	4.65	-0.64					
Lower Columbia	3.58	-1.79	9.94	+2.96					
Upper Deschutes	3.49	-0.45	6.87	+1.71					
Willamette Valley	15.11	-1.93	25.39	+7.07					
Southwestern	9.34	+1.71	14.17	+2.89					
South-Central	3.51	-0,39	5.21	+0.32					
Southeastern -	Owyhee and	lower Malhe	eur drainage	s,					
Blue Mountains - Upper valleys of the Umatilla, John Day and Malheur, and the Powder, Burnt and Silvies drainages.									
Wallowa Mountains -	_ Imnaha, Wallowa and Catherine drainages.								
Lower Columbia -	- Lower valleys of the Walla Walla, Umatilla, John Day and Deschutes, and the Hood and Sandy drainages.								
Upper Deschutes -	- Upper Deschutes and Crooked drainages.								
Willamette Valley -	All Willam	ette drainag	ges.						

- Umpqua, Rogue and Williamson drainages.

- Sprague, Lost and Interior Basin drainages.

Note - Precipitation shown in inches.

Southwestern

South-Central

Preliminary analysis by U. S. Weather Bureau from data furnished by Meteorological Services of Canada and U. S. Weather Bureau.

Departure from 10-year (1942-51) drainage division average.

r_. The following organizations cooperate in the Oregon snow survey work:

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and corps of State Watermasters
Oregon State Highway Engineers
Soil Conservation Districts of Oregon

FEDERAL

Department of Agriculture
Cooperative Extension Service
Forest Service
Soil Conservation Service
Department of Commerce
Weather Bureau
Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Indian Service
National Park Service
Department of National Defense
Army Engineer Corps

PUBLIC UTILITIES

California-Pacific Utilities Company Pacific Power and Light Company Portland General Electric Company The California Oregon Power Company

MUNICIPALITIES

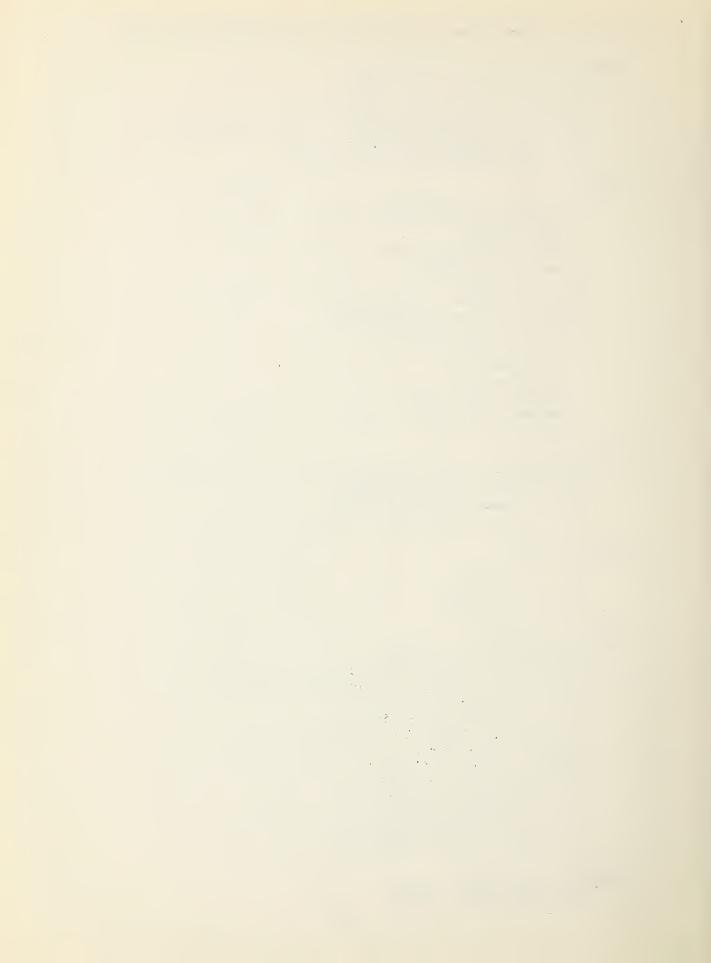
City of Baker City of La Grande City of The Dalles City of Walla Walla

IRRIGATION DISTRICTS

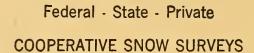
Associated Ditch Companies
Central Oregon Irrigation District
Deschutes County Municipal Improvement District
East Fork Irrigation District
Grants Pass Irrigation District
Jordan Valley Irrigation District
Lakeview Water Users, Incorporated
Medford Irrigation District
Ochoco Irrigation District
Rogue River Irrigation District
Talent Irrigation District
Vale-Oregon Irrigation District
Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

Amalgamated Sugar Company
The Crag Rats, Hood River, Oregon







Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"